

What is claimed is:

1. A method for maintaining a connection between a network device and a mobile communication unit, comprising the steps of:

commencing a connection between the network device and the mobile communication unit, the network device ending the connection if no communication is received from the mobile communication unit for a predetermined period of time, and

transmitting at least one keepalive packet from the mobile communication unit to the network device, the at least one keepalive packet serving to reset the predetermined period of time so that the network device does not end the connection.

2. The method of claim 1, wherein the at least one keepalive packet transmitted from the mobile communication unit serves primarily to reset the predetermined period of time so that the network device does not end the connection.

3. The method of claim 2, wherein the mobile communication unit periodically awakens from a low power state in order to transmit the at least one keepalive packet to the network device.

4. The method of claim 2 wherein the mobile communication unit periodically transmits the at least one keepalive packet to the network device in time intervals which are less than the predetermined time set by the network device.

5. The method of claim 4 wherein the mobile communication unit and the network device communicate using a TCP protocol.

6. The method of claim 1, wherein the at least one keepalive packet transmitted from the mobile communication unit serves solely to reset the predetermined period of time so that the network device does not end the connection.

7. The method of claim 6, wherein the mobile communication unit periodically awakens from a low power state in order to transmit the at least one keepalive packet to the network device.

8. The method of claim 6, wherein the mobile communication unit transmits the at least one keepalive packet substantially immediately prior to entering into a low power state.

9. The method of claim 6 wherein the mobile communication unit and the network device communicate using a TCP protocol.

10. The method of claim 6 wherein the mobile communication unit periodically transmits the at least one keepalive packet to the network device in time intervals which are less than the predetermined time set by the network device.

11. The method of claim 10 wherein the network device is a host computer.

12. A mobile communication unit for use in a communication system, the communication system including a backbone and a network device coupled to the backbone, the network device having a predetermined period of time during which, if no communication is received from the mobile communication unit, the network device ends an established

connection with the mobile communication unit, the mobile communication unit comprising:

a processor operative to control the mobile communication unit;

10 a transmitter coupled to the processor, the transmitter operative to transmit information to the network device upon a connection being established between the mobile communication unit and the network device; and

15 wherein the processor of the mobile communication unit transmits a keepalive packet to the network device, the keepalive packet serving to reset the predetermined period of time such that the network device does not end the established connection.

13. The mobile communication unit of claim 12, wherein the keepalive packet transmitted from the mobile communication unit to the network device is effectively transparent to the network device.

14. The mobile communication unit of claim 13, wherein the mobile communication unit periodically transmits the keepalive packet to the network device in time intervals which are less than the predetermined time set by the network device.

15. The mobile communication unit of claim 14, wherein the mobile communication unit periodically awakens from a low power state in order to transmit the keepalive packet to the network device.

16. The mobile communication unit of claim 12, wherein the keepalive packet transmitted from the mobile communication unit to the network device serves solely to reset the predetermined period of time so that the network device does not end the connection.

17. The mobile communication unit of claim 16, wherein the mobile communication unit periodically transmits the keepalive packet to the network device in time intervals which are less than the predetermined time set by the network device.

18. The mobile communication unit of claim 17, wherein in the event the mobile communication unit roams out of communicating range with the network device, the mobile communication unit suspends periodically transmitting the keepalive packet.

19. The mobile communication unit of claim 18, wherein the mobile communication unit and the network device communicate using a TCP protocol.

20. The mobile communication unit of claim 16, wherein the mobile communication unit periodically awakens from a low power state in order to transmit the keepalive packet to the network device.

21. The mobile communication unit of claim 16, wherein the mobile communication unit transmits the at keepalive packet substantially immediately prior to entering into a low power state.

22. A communication system comprising:

a network backbone;

a server coupled to the network backbone, the server determining if no communication from a mobile client is received for a predetermined period of time and, in the event no communication is received for the predetermined period of time, the server ending a connection with the mobile client; and

wherein the mobile client transmits a keepalive packet to the server, the keepalive packet serving to reset the predetermined period of time so that the server does not end the connection.

23. The communication system of claim 22, wherein the keepalive packet transmitted from the mobile client to the server serves primarily to reset the predetermined period of time so that the server does not end the connection.

24. The communication system of claim 23, wherein the mobile client periodically transmits the keepalive packet to the server in time intervals which are less than the predetermined time set by the server.

25. The communication system of claim 24, wherein the mobile client periodically awakens from a low power state in order to transmit the keepalive packet to the server.

26. The communication system of claim 22, wherein the keepalive packet transmitted from the mobile client to the server serves solely to reset the predetermined period of time so that the server does not end the connection.

27. The communication system 26, wherein the mobile client periodically transmits the keepalive packet to the server in time intervals which are less than the predetermined time set by the server.

28. The communication system claim 27, wherein in the event the mobile client roams out of communicating range with the server, the mobile client suspends periodically transmitting the keepalive packet.

29. The communication system 28, wherein the mobile client and the server communicate using a TCP protocol.

Approved for Release